

thoracocentesis, other therapies were similar to control group. The clinical curative effect and adverse effect were observed for the two groups.

**Results:** (1) The mean volume of fluid drained was  $1100 \pm 450$  ml and  $630 \pm 105$  ml. The mean time of admission was  $14 \pm 5.5$  d and  $20 \pm 6.7$  d. The incidence of pleural adhesion and loculation was 5 cases (33.3%) and 12 cases (70.6%) after 3 months in the therapy group and the control group respectively. There were significant difference for mean volume of fluid drained, mean time of admission and the incidence of pleural adhesion and loculation between the therapy group and control group ( $P < 0.05$ ). (2) The mean number of fluid drained and pulmonary function indexes was significant difference between the two groups ( $P < 0.05$ ). There was no serious adverse effect for the two groups.

**Conclusion:** Intrapleural injection of t-PA can evidently increase the volume of pleural effusion drained, prevent the incidence of pleural adhesion and loculation, and improve the lung function.

**PP-216 Analysis of features of chest X-ray and surveillance of blood glucose level on diabetes mellitus complicated with pulmonary tuberculosis**

C.-R. Zhang<sup>1</sup>\*, X.-Y. Liu<sup>1</sup>, H. Zhou<sup>1</sup>, W.-L. Cui<sup>1</sup>, W.-M. Xu<sup>1</sup>.  
<sup>1</sup>Huang Pu Hospital of the First Affiliated Hospital, Sun Yat-sen University, Guangzhou 510700, China

**Objective:** To observe the features of chest X-ray and the control of blood glucose on diabetic patients complicated with pulmonary tuberculosis.

**Methods:** The clinical data of a total of 316 diabetes mellitus patients with pulmonary tuberculosis were made a retrospectively investigation from Jan 1998 to Dec 2007.

**Results:** Chest X-Ray examination manifested mass confluence or plaque tubercule focus, there were bronchodissemination focus around the cavity. The GHBA1c, C peptide and the control of blood glucose level were  $10.74 \pm 2.95\%$ ,  $0.56 \pm 0.38$  nmol/L,  $13.11 \pm 5.63$  mmol/L,  $9.32 \pm 2.9\%$ ,  $0.60 \pm 0.3$  nmol/L and  $10.61 \pm 2.9$  mmol/L in the diabetic patients with and without pulmonary tuberculosis respectively. There were significant difference for GHBA1c and blood glucose level between the two groups ( $P < 0.05$ ).

**Conclusions:** The characteristic changes of the cavity and surveillance of blood glucose level are helpful to diagnosis of pulmonary tuberculosis in the patients with diabetes mellitus.

**PP-217 Treatment for abdominal tuberculosis caused adhesive small bowel obstruction using ileus tube combined somatostatin**

X.Y. Cao<sup>1</sup>, J. Jiang<sup>2</sup>\*, M.-S. Jin<sup>3</sup>, L. He<sup>1</sup>, Q. Wang<sup>1</sup>, J. Suo<sup>1</sup>.  
<sup>1</sup>Department of Gastrointestinal Surgery, First Hospital of Jilin University, China, <sup>2</sup>Division of Clinical Epidemiology, First Hospital of Jilin University, China, <sup>3</sup>Division of Pathology, First Hospital of Jilin University, China

**Background:** Abdominal tuberculosis was an important cause for intestinal obstruction in many countries. The aim of this study was to evaluate the efficacy and safety of ileus tube and somatostatin for abdominal tuberculosis caused adhesive small intestinal bowel obstruction in a single center study.

**Methods:** Between January 2002 and April 2011, Fifty-one patients diagnosed with abdominal tuberculosis caused adhesive intestinal bowel obstruction were enrolled in the study. They were randomly divided into two groups: somatostatin (0.6 mg/day) + ileus tube group (Group A, n=24), and nasogastric tube group (Group B, n=27). All cases received conventional treatment, including fasting,

maintaining electrolyte and acid-base balance, enteral and parenteral nutrition support, conventional antitubercular chemotherapy and antibiotics treatment.

**Result:** Group A had a quick recovery of flatus and stool compared with Group B, [ $(4.5 \pm 1.9)$  vs  $(7.8 \pm 1.7)$  d] ( $P < 0.05$ ). Abdominal pain and abdominal distension recovered faster [ $(3.6 \pm 1.5)$  vs  $(8.4 \pm 2.2)$  day] in the group A compared with the group B. The rate of intestinal operation in Group A was 4.2%, which was significantly less than the 25.9% in Group B ( $P < 0.05$ ).

**Conclusion:** Abdominal tuberculosis is an important and increasingly common cause of acute bowel obstruction. The high improvement rate in abdominal symptoms suggested the efficacy of somatostatin and ileus tube in patients with intestinal bowel obstruction caused by abdominal tuberculosis. The application of somatostatin combined with ileus tube can improve the symptoms of tuberculosis adhesive intestinal obstruction and decrease the rate of operation. Aggressive surgery should be avoided and initial surgical intervention should be limited to tissue or fluid sampling.

**PP-218 The interferon-gamma release assay used in patients with Fever of Unknown Origin**

Y. Wang<sup>1</sup>, K.Y. Zhang<sup>1</sup>, H.Y. Chen<sup>1</sup>, Y.X. Li<sup>1</sup>, X.Y. Yang<sup>1</sup>, W.G. Bao<sup>1</sup>, F. Wang<sup>1</sup>\*, <sup>1</sup>The infectious disease department of the 1st hospital of Jilin University, Changchun, China

**Background:** T-SPOT.TB is an interferon-gamma release assay to detect T-cell response to early secreting antigen target 6 and culture filtrate protein 10 peptides by enzyme-linked immunospot assay for tuberculosis diagnosis. This assay has been licensed for in-vitro diagnosis in Europe, the United States and China.

**Methods:** We enrolled 48 patients in the 1st hospital of Jilin University with fever of unknown origin whose blood culture and sputum culture results were negative and hematological disease and connective tissue disease were eliminated. Totally 48 patients took T-SPOT.TB assay to detect early secreting antigen target 6 or culture filtrate protein 10 peptides-specific T cells in the peripheral blood mononuclear cells (PBMCs). The patients also took tuberculin skin test (TST). We use T-SPOT.TB produced by Oxford Immunotec Ltd..

**Result:** The results of T-SPOT.TB of 25 patients were positive. 19 of them received anti-tuberculosis therapies and improved. 6 patients's body temperature decreased to the normal level after being treated with proper antibiotics. The TST results of 13 patients were positive. One patient was empirically treated with antibiotics first but failed. And then the patient was suspected to be with tuberculosis by hydrothorax tests and received experimental anti-tuberculosis therapy and recovered soon. 20 patients were diagnosed as active tuberculosis. 6 patients were considered as latent tuberculosis. The sensitivity of T-SPOT.TB is 95% and the specificity of T-SPOT.TB is 100%. The sensitivity of TST is 40% and the specificity of TST is 61.5%. Most patients with latent tuberculosis refused the treatment of anti-tuberculosis.

**Conclusion:** The infection rate is high in China. Tuberculosis is an important etiology of fever of unknown origin. Interferon-gamma release assay has much higher sensitivity and specificity than TST.